GENERIC PART 36
MACHINE/ELECTRICAL/POWER SYSTEM WEEKLY CHECKLIST

Make and Model No. _____

Machine Type _____

If an MSHA Part 36 approval plate has been affixed to this machine, it must meet the requirements of Part 36, Title 30, Code of Federal Regulations. It is the responsibility of the user to perform a weekly examination in accordance with 30 CFR, §75.1914(f)(1). Listed below are items and functions that must be examined.

ALL INSPECTIONS AND TESTS SHALL BE PERFORMED IN FRESH AIR.

A. FUEL SYSTEM:

1.	( )	There are no fuel leaks.
2.	( )	The fuel tank is vented and the vent is not plugged.
3.	( )	The fuel filler opening (i.e., filler cap, service system) is self-closing and is attached to the tank in a manner which will prevent fuel loss during refueling.
4.	( )	Auxiliary fuel tank capacity has not been added to the vehicle.
5.	( )	Fuel filters are properly installed and are not damaged.
6.	( )	The fuel injection rate adjustment mechanism and the engine governor setting are locked and sealed. For locating and identifying these items refer to the engine or equipment service/maintenance manual.
7.	( )	The fuel shutoff valve in the fuel supply line is operable.
8.	( )	The drain plug in the fuel tank is locked in position (NPT plug is considered self-locking).
9.	( )	Fuel lines are not routed near or connected to hot exhaust components and are protected from external damage.
10.	( )	Fuel lines are secured.

B. BRAKING SYSTEM:

WARNING: Brake tests are to be conducted on a relatively level surface, away from traffic areas where other machines or persons may be moving about. Consider the possible consequences of testing a machine with defective brakes, and select an area where the machine being tested would not cause an accident due to this defect.

For equipment with a torque converter transmission, perform the following tests; for all other types of

equipment, refer to the equipment manufacturers' service/maintenance manuals for the appropriate service and park brake test procedure.

1. ( ) Service Brake Test.

   a. With the engine operating and the machine stationary, apply the service brake.

   b. Release all other brakes.

   c. Place the transmission gear selector in the proper gear (refer to Service/Maintenance Manual) and the directional control selector in forward or reverse.

   d. Gradually depress the accelerator to full throttle, allowing the engine to put the transmission torque converter into a stall condition.

      If the service brake is operating satisfactorily, the unit will not move when the above procedure is followed. If movement is detected, the service brake must be repaired or adjusted.

2. ( ) Parking Brake Test.

   a. With the engine operating and the machine stationary, apply the parking brake.

   b. Release all other brakes.

   c. Place the transmission gear selector in proper gear (refer to Service/Maintenance Manual) and the directional control selector in forward or reverse.

   d. Gradually depress the accelerator to full throttle, allowing the engine to put the transmission torque converter into a stall condition.

      If the parking brake is operating satisfactorily, the unit will not move when the above procedure is followed. If movement is detected, the parking brake must be repaired or adjusted.

      For machines equipped with a declutch valve, refer to override procedures in the equipment manufacturer's Service/Maintenance Manual to effectively evaluate parking brake capability.

C. ELECTRICAL SYSTEM:

ALL ELECTRICAL ENCLOSURES MUST MEET THE FOLLOWING:

1. ( ) All electrical enclosures have an MSHA plate attached that is clearly stamped with an MSHA certification number (X/P number).
2. ( ) All electrical enclosures are securely mounted and are protected from physical damage.
3. ( ) All electrical enclosures are intact (not cracked or broken); the headlight lenses are not loose.
4. ( ) All threaded covers are secured from loosening by a locking screw, wire, or other means.
5. ( ) Lockwashers or equivalent devices are provided for all bolts, screws, or studs that secure parts of the explosion-proof enclosures. All bolts, screws and studs are in place and tightened.
6. ( ) None of the fastenings used for joints on the explosion-proof enclosures are used for attaching non-essential parts or for making electrical connections.
7. ( ) Feeler gauges of the appropriate size are used to ensure that the clearances in all accessible flame path joints, between the enclosures and corresponding covers are not exceeded.
8. ( ) A headlight is installed at each end of the machine and operable.
9. ( ) Headlight switch does not control or operate any electrical circuits other than headlights.
10. ( ) All lead entrances (packing glands) are assembled so that the cable jacket penetrates into the enclosure and when tightened, a 1/8" minimum clearance remains between the packing nut and stuffing box.
11. ( ) All packing nuts and stuffing boxes are secured from loosening by a locking screw, wire, or other means. All unused lead entrances are closed with metal plugs which are secured in place by spot welding, brazing, or equivalent.

CABLES CONNECTING ELECTRICAL COMPONENTS MUST BE:

12. ( ) Clamped in place to prevent undue movement.

13. ( ) Protected from mechanical damage by position, flame resistant hose conduit, metal tubing, or troughs.

    NOTE: Flexible or threaded rigid metal conduit is not acceptable.

14. ( ) Not subject to abrasion from sharp corners or edges.

15. ( ) Isolated from hydraulic lines and components.

16. ( ) Isolated from fuel lines.

17. ( ) Flame resistant if not enclosed in hose conduit. This is indicated by "MSHA" markings on the cable.

18. ( ) If hose conduit is used, it must be securely clamped at both ends and MSHA markings appear as "Flame-Resistant, US MSHA, US MESA, or USBM 2G-(xxx)."

D. POWER SYSTEM CHECKLIST:

Intake System

1. ( ) All joints inby the intake flame arrestor including the joint between the engine head and intake manifold or intake adapter include a metal or metal-clad gasket.

   NOTE: Some Part 36 machines were approved without a gasket in these locations. Contact the equipment manufacturer to determine if a gasket is required for those joints without a gasket.

2. ( ) Caterpillar 3306 PCNA engines, the alternate air intake cover plate has a metal or metal-clad gasket installed between the alternate intake cover plate and the engine head. Fasteners securing the cover plate to the engine head are in place and tight.

3. ( ) The fasteners securing the intake components are in place and tight.

4. ( ) The complete intake system shows no evidence of damage. There are no loose connections, cracks, or missing port plugs or caps.

Exhaust System

The exhaust system of the engine includes a water-cooled exhaust manifold, water-cooled exhaust pipe and a scrubber.

5. ( ) All joints inby the scrubber including the joint between the engine head and exhaust manifold include a metal or metal-clad gasket.

   NOTE: Some Part 36 machines were approved without a gasket in these locations. Contact the equipment manufacturer to determine if a gasket is required for those joints without a gasket.

6. ( ) The fasteners securing the exhaust components are in place and tight.

7. ( ) For machines provided with a rubber hump hose connection between the exhaust pipe and the scrubber, the rubber hump hose has no cracks or openings and the two clamps securing the hose are in place and tight.

8. ( ) The scrubber is in good condition with no open holes or cracks due to corrosion, accidents, missing plugs, etc.

9. ( ) The engine shuts down when the stop button located on the instrument panel is held in.

10. ( ) The plug or cap sealing the intake vacuum port and exhaust back pressure test port are securely installed.

11. ( ) Test for proper scrubber low water shutdown. Perform the test described in the equipment manufacturer's Service/Maintenance Manual.

    WARNING: SCRUBBER WATER MAY BE HOT!

12. ( ) After engine has automatically shut down due to low water, try restarting the engine prior to replenishing the water. The engine may turn over but must not start. Replenish scrubber water.

13. ( ) For machines with a diesel particulate filter, the high exhaust gas temperature sensor shuts the engine down at the correct temperature. Test the temperature sensor that is installed in the exhaust pipe located between the scrubber and diesel particulate filter housing. A test method is offered for verifying that the sensor is calibrated to the correct temperature setting or the existing sensor can be replaced with a sensor calibrated elsewhere.

    WARNING: EXHAUST PIPE AND SENSOR MAY BE HOT!

    To test the temperature shutdown sensor. Unscrew the sensor from the exhaust pipe and install a pipe plug in its place. Start the engine and immerse the end of the temperature sensor into a container of heated and agitated water. The sensor must trip and shut down the engine before the temperature exceeds the equipment manufacturer's specified temperature setting.

14. ( ) The temperature sensor is reinstalled in the exhaust pipe.

CAUTION: Prior to performing test required by item 15, contact the equipment manufacturer's service representative on the proper procedure to follow to prevent engine damage.

15. ( ) The emergency intake air shutoff valve shuts the engine down upon actuation from the operator's compartment.

D. MISCELLANEOUS:

1. ( ) The machine is equipped with at least one5 pound dry chemical fire extinguisher. All fire extinguishers are fully charged.
2. ( ) For machines equipped with an air system, the main air pressure gauge in the operator's compartment is operable.
3. ( ) The machine has an MSHA Part 36 approval plate attached to it in the operator's compartment.
4. ( ) The engine will not turn over unless the directional control selector is in the neutral position or the transmission is disengaged.
5. ( ) A means of diluting the exhaust gas at the scrubber outlet is provided.

For machines equipped with a methane monitoring system, the following additional checks apply:

6. ( ) The vent holes and filter(s) on the sensor head are not clogged with water, dust, or other material.
7. ( ) The warning device can be seen by the machine operator at all locations from which the machine is operated.
8. ( ) The lens(es) protecting the meter and indicating lamp(s) is/are not cracked or broken.
9. ( ) The methane monitor meter or readout assembly is properly adjusted to indicate zero (0) percent methane when no methane is present.
10. ( ) Activate the test switch. A warning is given when one (1) percent methane is indicated on the meter or readout assembly. The engine shuts down and all electrical components are deenergized when two (2) percent methane is indicated on the meter or readout assembly. Self-contained, battery-powered headlights, approved under Part 20, are exempt from this requirement.
11. ( ) It is not possible to defeat the methane monitor and start the engine by holding or blocking the machine's reset switch in the start position.